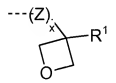
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for crosslinking oxetane-functionalised, organic semiconductors and conductors comprising initiating by irradiation in the presence of at least one added onium compound, wherein the irradiation is carried out ~~outside the absorption band of the onium compound~~ at an irradiation wavelength where the absorbance of the onium compound is at most 5 % of the maximum absorbance of said onium compound.

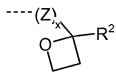
2. (Previously Presented) The process of claim 1, wherein the irradiation is carried out at a wavelength at least 100 nm longer than the absorption maximum of the onium compound.

3. (Previously Presented) The process of claim 1, wherein the organic semiconductor or conductor is oligomeric or polymeric.

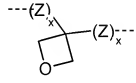
4. (Previously Presented) The process of claim 1, wherein at least one H atom in the organic semiconductor or conductor has been replaced by a group of the formula (1), formula (2), formula (3) or formula (4)



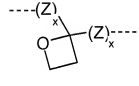
Formula (1)



Formula (2)



Formula (3)



Formula (4)

wherein

R^1 is on each occurrence, identically or differently, hydrogen, a straight-chain, branched or cyclic alkyl, alkoxyalkyl, alkoxy or thioalkoxy group having 1 to 20 C atoms, an aryl or heteroaryl group having 4 to 18 aromatic ring atoms or an alkenyl group having 2 to 10 C atoms, in which one or more hydrogen atoms is

optionally replaced by a halogen or CN and one or more non-adjacent C atoms is optionally replaced by -O-, -S-, -CO-, -COO-, -O-CO-,

R^2 is on each occurrence, identically or differently, hydrogen, a straight-chain, branched or cyclic alkyl or alkoxyalkyl group having 1 to 20 C atoms, an aryl or heteroaryl group having 4 to 18 aromatic ring atoms or an alkenyl group having 2 to 10 C atoms, in which one or more hydrogen atoms is optionally replaced by a halogen or CN and one or more non-adjacent C atoms is optionally replaced by -O-, -S-, -CO-, -COO-, -O-CO-,

Z is on each occurrence, identically or differently, a divalent group -(CR3R4)n-, in which, in addition, one or more non-adjacent C atoms is optionally replaced by -O-, -S-, -CO-, -COO- or -O-CO-, or a divalent aryl and/or N-, S- and/or O-heteroaryl group having 4 to 40 C atoms, which is optionally substituted by one or more radicals R3,

R^3 and R^4

are on each occurrence, identically or differently, hydrogen, a straight-chain, branched or cyclic alkyl, alkoxy, alkoxyalkyl or thioalkoxy group having 1 to 20 C atoms, an aryl or heteroaryl group having 4 to 20 aromatic ring atoms or an alkenyl group having 2 to 10 C atoms, in which one or more hydrogen atoms is optionally replaced by a halogen or CN; radicals R^3 or R^4 here optionally form a ring system with one another or with R^1 or R^2,

n is on each occurrence, identically or differently, an integer between 0 and 30,

x is on each occurrence, identically or differently, an integer between 0 and 5,

wherein the number of the groups of the formula (1) or formula (2) is limited by the maximum number of available H atoms of the organic semiconductor or conductor; the dashed bond indicates the link to the organic semiconductor.

5. (Previously Presented) The process of claim 4, wherein at least one H atom in the organic semiconductor or conductor has been replaced by a group of the formula (1).

6. (Previously Presented) The process of claim 1, wherein the organic semiconductor has charge-transport properties, emission properties, or blocking properties or a combination of charge-transport properties, emission properties and blocking properties.

7. (Previously Presented) The process of claim 1, wherein the onium compound employed comprises at least one diaryliodonium, diarylbromonium, diarylchloronium or triarylsulfonium salt.

8. (Previously Presented) The process of claim 1, wherein the proportion of the onium compound in the mixture is between 0.01 and 5% by weight.

9. (Previously Presented) The process of claim 8, wherein the proportion of the onium compound in the mixture is between 0.1 and 2% by weight.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

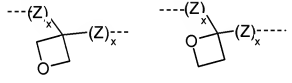
15. (Cancelled)

16. (Previously Presented) The process of claim 1, wherein the irradiation is carried out at a wavelength in the region of up to +/- 50 nm of the absorption maximum of the absorption band of the organic semiconductor.

17. (Previously Presented) The process of claim 1, wherein the duration of the irradiation is between 0.01 and 10 seconds at a light intensity of < 1 mW/cm2.

18. (Previously Presented) The process of claim 1, wherein in addition to the crosslinking, doping of the layer occurs at the same time by incompletely conditioning and/or rinsing the layer after the irradiation.

19. (Previously Presented) A compound of formula (3) or formula (4)



Formula (3) Formula (4)

wherein

Z is on each occurrence, identically or differently, a divalent group $-(CR^3R^4)_n-$, in which, in addition, one or more non-adjacent C atoms is optionally replaced by -O-, -S-, -CO-, -COO- or -O-CO-, or a divalent aryl and/or N-, S- and/or O-heteroaryl group having 4 to 40 C atoms, which is optionally substituted by one or more radicals R^3,

R^3 and R^4

are on each occurrence, identically or differently, hydrogen, a straight-chain, branched or cyclic alkyl, alkoxy, alkoxyalkyl or thioalkoxy group having 1 to 20 C atoms, an aryl or heteroaryl group having 4 to 20 aromatic ring atoms or an alkenyl group having 2 to 10 C atoms, in which one or more hydrogen atoms is optionally replaced by a halogen or CN;

n is on each occurrence, identically or differently, an integer between 0 and 30,

x is on each occurrence, identically or differently, an integer between 0 and 5,

wherein the dashed bond indicates the link to the organic semiconductor.

20. (Previously Presented) A process for crosslinking and optionally simultaneous doping of oxetane-containing organic semiconductors, which comprises adding at least one oxidant to a crosslinking reaction.

21. (Previously Presented) A process for the photosensitised doping of organic semiconductors or conductors by photoacids, which comprises carrying out irradiation outside the absorption band of the photoacid.

22. (Previously Presented) An organic semiconducting layer produced by the process-the process of claim 1.

23. (Cancelled)

24. (Previously Presented) An organic electronic device comprising at least one layer produced by the process of claim 1.

25. (Previously Presented) The organic electronic device of claim 24, wherein the device is an organic or polymeric light-emitting diode (OLED, PLED), organic solar cell (O-SC), organic field-effect transistor (O-FET), organic thin-film transistor (O-TFT), organic integrated circuit (O-IC), organic optical amplifier or organic laser diode (O-laser).

26. (Previously Presented) The process of claim 20, wherein doping of the oxetane-containing organic semiconductors occurs simultaneously with the crosslinking of said semiconductors.

27. (Previously Presented) A process for producing a semiconductor layer comprising crosslinking a layer according to the process of claim 1.

28. (Previously Presented) The process of claim 27, wherein the layer is post-treated after the irradiation.

29. (Previously Presented) The process of claim 27, wherein the layer is conditioned after the irradiation.

30. (Previously Presented) The process of claim 27, wherein the layer is conditioned in a temperature range from between 50 and 250°C.

31. (Previously Presented) The process of claim 29, wherein the layer is conditioned for between 0.1 and 10 minutes.

32. (Previously Presented) The process of claim 27, wherein the layer is rinsed with a solvent after irradiation.

33. (Previously Presented) The process of claim 32, wherein at least one reducing agent and/or at least one weak base or nucleophile is added to the solvent.